DPM 110-clear

MATERIAL SAFETY DATA SHEET

FOR COATINGS, RESINS AND RELATED MATERIALS

(Approved by U.S. Department of Labor "Essentially Similar" to Form OSHA-20)

DATE OF PREP.

10-81

Section I

MANUFACTURER'S NAME

BOSTIK WEST.

DIVISION OF EMHART CORPORATION

STREET ADDRESS

20846 S. NORMANDIE AVE. CITY STATE AND ZIP CODE

TORRANCE, CA

EMERGENCY TELEPHONE NO. (213) 320-6800

PRODUCT CLASS

TRADE NAME

MANUFACTURERS CODE IDENTIFICATION

Catalyst for 443-3-Series; 3 parts base to 1 part X-304. 453-1000 Series; 4 parts base to 1 part X-304.

463-3-Series; 4 parts base to 1 part X-304.

BOSTIK

# Section II — HAZARDOUS INGREDIENTS

INGREDIENT X-304 EPOXY CATALYST*	CAS NO.	PERCENT (Wt.)	T PPM	LV mg/M³	LEL	VAPOR PRESSURE
Methyl Ethyl Ketone Butyl Alcohol	78-93-3 71-36-3	25-30 20-25	200 100		1.8 1.7	70 4
Butyl Acetate	123-86-4	20-25	150		1.7	8
Butyl Cellosolve Toluene	111-76-2 108-88-3	10-15 5-10	50 200		1.1	1 22
				er er er er er er er		
*X-304 may also contain a minor amount of diethylene triamine(DETA) ACGIH, TWA	111–40–0		1.0			

#### Section III — PHYSICAL DATA

BOILING RANGE

176-340° F.

VAPOR DENSITY

X HEAVIER

LIGHTER, THAN AIR

FASTER X SLOWER, THAN ETHER

PERCENT VOLATILE BY VOLUME

75%

7.1 lbs.

## Section IV - FIRE AND EXPLOSION HAZARD DATA

DOTCATEGORYed Label, Flammable

23° F.

Tag Closed Cup

1.1

**EXTINGUISHING MEDIA** 

Exclude air-Use foam, CO2, steam, water fog,

dry chemicals. Do not use water.

UNUSUAL FIRE AND EXPLOSION HAZARDS

Vapor forms explosive mixture with air between

upper and lower explosion limits.

SPECIAL FIRE FIGHTING PROCEDURES

Do not use water, exclude air, use water spray to cool fire exposed surfaces and to protect personnel:

Section V — HEALTH HAZARD DATA
THRESHOLDLIMIT VALUE: See Section II  EFFECTS OF OVEREXPOSURE: Headache, nausea, dizziness. Breathing vapor will be irritating to nose, throat, and eyes.
Emergency and first aid procedures: \Skin Exposure: Wash affected area with soap and water.
Eye Exposure: Flush with water for at least 15 minutes, consult physician.  Ingestion: Consult physician immediately.  Inhalation: Remove victim to fresh air., consult physician.
Section VI — REACTIVITY DATA
STABILITYUNSTABLE
Hazardous Decomposition Products: On combustion CO, CO <sub>2</sub> , Aldehydes and other organics, oxides of nitrogen.  HAZARDOUS POLYMERIZATION MAY OCCUR XXX WILL NOT OCCUR  CONDITIONS TO AVOID
Section VII — SPILL OR LEAK PROCEDURES
Prevent liquid from entering sewers, water sources, or low areas. Keep unnecessary personnel awa Shut off source, if possible to do so without hazard. Contain spilled liquid with sawdust, sand of labsorbing compound. Wash area with detergent & water.  Consult disposal expert and ensure conformity with local regulations.
Section VIII — SPECIAL PROTECTION INFORMATION
RESPIRATORY PROTECTION: Use approved respiratory protection such as an air-supplied mask if used in non-ventilated area.  Mechanical: Explosion-proof ventilation equipment. No smoking or open lights.
VENTILATION: Face velocity $>$ 60 fpm in confined area
. Tude verocity you im the contined area
Protective Gloves: Chemically resistant gloves.  EYE PROTECTION: Chemical splash goggles or face shield.  OTHER PROTECTIVE EQUIPMENT: Eye bath & Safety Shower.
Section IX — SPECIAL PRECAUTIONS
PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: Keep containers closed when not in use. Do No handle or store near flame, heat or strong oxidants. Adequate ventilation required. Containers of this product may be hazardous when emptied - these containers retain product residues (vapor, liquid, et other precautions
All handling equipment should be electrically grounded. Treat as a very flammable liquid.

BOE-C6-0207918

Lee A. Dickinson Technical Service Manager

#### FOR COATINGS, RESINS AND RELATED MATERIALS

(Approved by U.S. Department of Labor "Essentially Similar" to Form OSH (20)

DATE OF PREP.

10 - 81

Section I

MANUFACTURER'S NAME

BOSTIK WEST, DIVISION OF EMHART CORPORATION

STREET ADDRESS 20846 S. NORMANDIE AVE. CITY, STATE, AND ZIP CODE

TORRANCE, CA.

EMERGENCY TELEPHONE NO. (213) 320-6800

PRODUCT CLASS

AMINE

MANUFACTURERS CODE IDENTIFICATION

Catalyst for 443-3-Series; 3 parts base to 1 part X-304.

453-1000 Series; 4 parts base to 1 part X-304. 463-3-Series; 4 parts base to 1 part X-304.

TRADE NAME

BOSTIK

### Section II — HAZARDOUS INGREDIENTS

INGREDIENT X-304 EPOXY CATALYST*	CAS NO.	PERCENT (Wt.)	T PPM	LV mg/M³	LEL	VAPOR PRESSURE
Methyl Ethyl Ketone	78-93-3	25-30	200		1.8	70
Butyl Alcohol	71-36-3	20-25	100		1.7	4
Butyl Acetate	123-86-4	20-25	150		1.7	8
Butyl Cellosolve	111-76-2	10-15	50		1.1	1
Toluene	108-88-3	5-10	200		1.2	. 22
						*
*X-304 may also contain a minor amount of diethylene triamine(DETA) ACGIH, TWA	111-40-0		1.0			

### Section III - PHYSICAL DATA

176-340° F.

VAPOR DENSITY

HEAVIER

LIGHTER, THAN AIR

EVAPORATION RATE

FASTER

X SLOWER, THAN ETHER

PERCENT VOLATILE

7.1 lbs.

## Section IV — FIRE AND EXPLOSION HAZARD DATA

DOTCATEGORYed Label, Flammable

23° F.

75%

Tag Closed

1.1

**EXTINGUISHING MEDIA** 

Exclude air-Use foam, CO2, steam, water fog, dry chemicals. Do not use water.

UNUSUAL FIRE AND EXPLOSION HAZARDS

Vapor forms explosive mixture with air between upper and lower explosion limits.

SPECIAL FIRE FIGHTING PROCEDURES

Do not use water, exclude air, use water spray to cool fire exposed surfaces and to protect 

Section V — HEALTH HAZARD DATA
THRESHOLDLIMIT VALUE: See Section II  EFFECTS OF OVEREXPOSURE: Headache, nausea, dizziness. Breathing vapor will be irritating to nose, throat, and eyes.
Emergency and first aid procedures: Skin Exposure: Wash affected area with soap and water.
Eye Exposure: Flush with water for at least 15 minutes, consult physician.  Ingestion: Consult physician immediately.  Inhalation: Remove victim to fresh air., consult physician.
Section VI — REACTIVITY DATA
STABILITY UNSTABLE XXX STABLE CONDITIONS TO AVOID: Storage at high temperatures.  Incompatability(Materials to avoid): Strong oxidizing agents. Sparks & open flame
Hazardous Decomposition Products:  On combustion CO, CO <sub>2</sub> , Aldehydes and other organics, oxides  of nitrogen.  HAZARDOUS POLYMERIZATION MAY OCCUR  MAY OCCUR  MAY OCCUR  MAY OCCUR  MAY OCCUR
Section VII — SPILL OR LEAK PROCEDURES
STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Eliminate sources of ignition and clear fumes from area. Prevent liquid from entering sewers, water sources, or low areas. Keep unnecessary personnel away that off source, if possible to do so without hazard. Contain spilled liquid with sawdust, sand of waste bisposal methods out to disposal expert and area.
Consult disposal expert and ensure conformity with local regulations.
Section VIII — SPECIAL PROTECTION INFORMATION
RESPIRATORY PROTECTION: Use approved respiratory protection such as an air-supplied mask if used in non-ventilated area.  Mechanical: Explosion-proof ventilation equipment. No smoking or open lights.
VENTUATION : Face velocity > 60 fpm in constitut
VENTILATION : Face velocity > 60 fpm in confined area
rotective Gloves: Chemically resistant gloves, YE PROTECTION: Chemical splash goggles or face shield. OTHER PROTECTIVE EQUIPMENT: Eye bath & Safety Shower

# Section IX — SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: Keep containers closed when not in use. Do No handle or store near flame, heat or strong oxidants. Adequate ventilation required. Containers of this product may be hazardous when emptied - these containers retain product residues (vapor, liquid, etc.)

All handling equipment should be electrically grounded. Treat as a very flammable liquid.

Lee A. Dickinson

Technical Service Manager

FOR COATINGS, RESINS AND RELATED MATERIALS

(Approved by U.S. Department of Labor "Essentially Similar" to Form OSHA-20)

DATE OF PREP.

10-81

Section I

MANUFACTURER'S NAME

BOSTIK WEST,

DIVISION OF EMHART CORPORATION

STREET ADDRESS

20846 S. NORMANDIE AVE. CITY, STATE, AND ZIP CODE

TORRANCE, CA.

90502

EMERGENCY TELEPHONE NO. (213)320-6800

BOSTIK

PRODUCT CLASS

TRADE NAME

AMINE

MANUFACTURERS CODE IDENTIFICATION

Catalyst for 443-3-Series; 3 parts base to 1 part X-304. 453-1000 Series; 4 parts base to 1 part X-304.

463-3-Series; 4 parts base to 1 part X-304.

Section II - HAZABDOUS INCREDIENTS

Section II — HAZARDOUS INGREDIEN 15						
INGREDIENT X-304 EPOXY CATALYST*	CAS NO.	PERCENT (Wt.)	T PPM	LV mg/M³	LEL	VAPOR PRESSURE
Methyl Ethyl Ketone	78-93-3 71-36-3	25-30 20-25	200		1.8	70 4
Butyl Alcohol Butyl Acetate	123-86-4	20-25	150		1.7	8
Butyl Cellosolve	111-76-2	10-15	50		1.1	1
*X-304 may also contain a minor amount of diethylene triamine(DETA) ACGIH, TWA	108-88-3	5-10	200		1.2	22

#### Section III — PHYSICAL DATA

BOILING RANGE

176-340° F.

VAPOR DENSITY

X HEAVIER

LIGHTER, THAN AIR

FASTER X SLOWER, THAN ETHER

PERCENT VOLATILE BY VOLUME

75%

**WEIGHT PER** 

7.1 lbs.

## Section IV - FIRE AND EXPLOSION HAZARD DATA

DOTCATEGORYed Label, Flammable

23° F.

Tag Closed

1.1 LEL

**EXTINGUISHING MEDIA** 

Exclude air-Use foam, CO2, steam, water fog,

dry chemicals. Do not use water.

UNUSUAL FIRE AND EXPLOSION HAZARDS

Vapor forms explosive mixture with air between

upper and lower explosion limits.

SPECIAL FIRE FIGHTING PROCEDURES

Do not use water, exclude air, use water spray to cool fire exposed surfaces and to protect personnel.

# Section V — HEALTH HAZARD DATA See Section II THRESHOLD LIMIT VALUE EFFECTS OF OVEREXPOSURE Headache, nausea, dizziness. Breathing vapor will be irritating to nose, throat, and eyes. EMERGENCY AND FIRST AID PROCEDURES : Skin Exposure: Wash affected area with soap and Flush with water for at least 15 minutes, consult Eye Exposure: Ingestion: Consult physician immediately. physician. Inhalation: Remove victim to fresh air, consult physician. Section VI — REACTIVITY DATA CONDITIONS TO AVOID Storage at high temperatures. XX STABLE INCOMPATABILITY (Materials to avoid) Strong oxidizing agents. Sparks & open flame. HAZARDOUS DECOMPOSITION PRODUCTS On combustion CO, CO2, Aldehydes and other organics, oxides of nitrogen. HAZARDOUS POLYMERIZATION MAY OCCUR XX WILL NOT OCCUR CONDITIONS TO AVOID Section VII — SPILL OR LEAK PROCEDURES STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Eliminate sources of ignition and clear fumes Prevent liquied from entering sewers, water sources, or low areas. Keep unnecessary personnel away. Shut off source, if possible to do so without wasted by the bound hazard. Contain spilled liquid with sawdust, sand or oil absorbing compound. Wash area with detergent & water. Consult disposal expert and ensure conformity with local regulations. Keep unnecessary personnel away. Section VIII — SPECIAL PROTECTION INFORMATION RESPIRATORY PROTECTION: Use approved respiratory protection such as an air-supplied mask if used in non ventilated area. Mechanical: Explosion-proof ventilation equipment. No smoking or open lights. ventilation: Face velosity $oldsymbol{\lambda}$ 60fpm in confined area. PROTECTIVE GLOVES Chemically resistant gloves. EYE PROTECTION Chemical splash goggles or face shield. OTHER PROTECTIVE EQUIPMENT Eye bath & Safety shower. Section IX — SPECIAL PRECAUTIONS PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: Keep containers closed when not in use. Do Not handle or store near flame, heat or strong oxidants. Adequate ventilation required. Containers of this product may be hazardous when emptied -these other precautions containers retain product residues (vapor, liquid, etc.). All handling equipment should be electrically grounded. Treat as a very flammable liquid.

Technical Administrative Manager

### FOR COATINGS, RESINS AND RELATED MATERIALS

(Approved by U.S. Department of Labor "Essentially Similar" to Form OSHA-20)

DATE OF PREP.

10 - 81

Section I

BOSTIK WEST, DIVISION OF EMHART CORPORATION

STREET ADDRESS

20846 S. NORMANDIE AVE. CITY, STATE, AND ZIPCODE

TORRANCE, CA.

90502

EMERGENCY TELEPHONE NO. (213) 320-6800

PRODUCT CLASS

AMINE

MANUFACTURERS CODE IDENTIFICATION

TRADE NAME BOSTIK Catalyst for 443-3-Series; 3 parts base to 1 part X-304. 453-1000 Series; 4 parts base to 1 part X-304.

463-3-Series; 4 parts base to 1 part X-304.

# Section II — HAZARDOUS INGREDIENTS

INGREDIENT X-304 EPOXY CATALYST*	CAS NO.	PERCENT (Wt.)	TI PPM	.V mg/M³	LEL	VAPOR PRESSURE
Methyl Ethyl Ketone	78-93-3	25-30	200		1.8	70
Butyl Alcohol	71-36-3	20-25	100		1.7	4
Butyl Acetate	123-86-4	20-25	150		1.7	8
Butyl Cellosolve	111-76-2	10-15	50		1.1	1
Toluene	108-88-3	5-10	200		1.2	22
*X-304 may also contain a minor amount of diethylene triamine(DETA) ACGIH, TWA	111–40–0		1.0			

#### Section III — PHYSICAL DATA

**BOILING RANGE** 

176-340° F.

VAPOR DENSITY

X HEAVIER

LIGHTER, THAN AIR

FASTER X SLOWER, THAN ETHER

PERCENT VOLATILE BY VOLUME

**WEIGHT PER** 75%

7.1 lbs.

### Section IV — FIRE AND EXPLOSION HAZARD DATA

DOTCATEGORNed Label, Flammable

Tag Closed

1.1

**EXTINGUISHING MEDIA** 

Exclude air-Use foam, CO2, steam, water fog,

Do not use water. dry chemicals.

UNUSUAL FIRE AND EXPLOSION HAZARDS

Vapor forms explosive mixture with air between

upper and lower explosion limits.

SPECIAL FIRE FIGHTING PROCEDURES

Do not use water, exclude air, use water spray to cool fire exposed surfaces and to protect

Section V — HEALTH HAZARD DATA
THRESHOLDLIMIT VALUE: See Section II  EFFECTS OF OVEREXPOSURE: Headache, nausea, dizziness. Breathing vapor will be irritating to nose, throat, and eyes.
Emergency and first aid procedures: Skin Exposure: Wash affected area with soap and water.  Eye Exposure: Flush with water for at least 15 minutes, consult physician.  Ingestion: Consult physician immediately.  Inhalation: Remove victim to fresh air., consult physician.
Section VI — REACTIVITY DATA
Incompatability (Materials to avoid): Strong oxidizing agents. Sparks & open flame  Hazardous Decomposition Products: On combustion CO, CO2, Aldehydes and other organics, oxides of nitrogen.  HAZARDOUS POLYMERIZATION MAY OCCUR XXX WILL NOT OCCUR
Section VII — SPILL OR LEAK PROCEDURES
STEPS TO BE TAKEN IN CASE MATERIALIS RELEASED OR SPILLED: Eliminate sources of ignition and clear fumes from are Prevent liquid from entering sewers, water sources, or low areas. Keep unnecessary personnel away should be so without hazard. Contain spilled liquid with sawdust, sand to all the sawdust, sand to consult disposal expert and ensure conformity with local regulations.
Section VIII — SPECIAL PROTECTION INFORMATION
RESPIRATORY PROTECTION: Use approved respiratory protection such as an air-supplied mask if used in non-ventilated area.  Mechanical: Explosion-proof ventilation equipment. No smoking or open lights.
VENTILATION: Face velocity > 60 fpm in confined area
Protective Gloves: Chemically resistant gloves,  EYE PROTECTION: Chemical splash goggles or face shield.  DITHER PROTECTIVE EQUIPMENT: Eye bath & Safety Shower.
Section IX — SPECIAL PRECAUTIONS
PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: Keep containers closed when not in use. Do No handle or store near flame, heat or strong oxidants. Adequate ventilation required. Containers of this product may be hazardous when emptied - these containers retain product residues (vapor, liquid, e

All handling equipment should be electrically grounded. Treat as a very flammable liquid.

Lee A. Dickinson Technical Service Manager

FOR COATINGS, RESINS AND RELATED MATERIALS

(Approved by U.S. Department of Labor "Essentially Similar" to Form OSHA-20

DATE OF PREP.

10 - 81

Section I

MANUFACTURER'S NAME

BOSTIK WEST,

DIVISION OF EMHART CORPORATION

STREET ADDRESS

20846 S. NORMANDIE AVE. CITY. STATE, AND ZIPCODE

TORRANCE, CA.

EMERGENCY TELEPHONE NO. (213) 320-6800

PRODUCT CLASS

TRADE NAME

MANUFACTURERS CODE IDENTIFICATION

Catalyst for 443-3-Series; 3 parts base to 1 part X-304. 453-1000 Series; 4 parts base to 1 part X-304.

463-3-Series; 4 parts base to 1 part X-304.

BOSTIK

# Section II - HAZARDOUS INGREDIENTS

INGREDIENT X-304 EPOXY CATALYST*	CAS NO.	PERCENT (Wt.)	TI PPM	.V mg/M³	LEL	VAPOR PRESSURE
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Butyl Alcohol	71-36-3	20-25	100		1.7	4
Butyl Acetate	123-86-4	20-25	150		1.7	8
Butyl Cellosolve	111-76-2	10-15	50		1.1	1
Toluene	108-88-3	5-10	200		1.2	22
*X-304 may also contain a minor amount of diethylene triamine(DETA) ACGIH, TWA	111-40-0		1.0			

# Section III - PHYSICAL DATA

BOILING RANGE

176-340° F.

VAPOR DENSITY

X HEAVIER

LIGHTER, THAN AIR

EVAPORATION RATE FASTER X SLOWER, THAN ETHER

PERCENT VOLATILE

WEIGHT PER 75%

7.1 lbs.

### Section IV — FIRE AND EXPLOSION HAZARD DATA

DOTCATEGORNed Label, Flammable

Tag Closed

1.1

EXTINGUISHING MEDIA

Exclude air-Use foam, CO,, steam, water fog,

dry chemicals. Do not use water.

UNUSUAL FIRE AND EXPLOSION HAZARDS

Vapor forms explosive mixture with air between

upper and lower explosion limits.

SPECIAL FIRE FIGHTING PROCEDURES

Do not use water, exclude air, use water spray to cool fire exposed surfaces and to protect personnel.

	THRESHOLD LIMIT VALUE: See Section II
	EFFECTS OF OVEREXPOSURE: Headache, nausea, dizziness. Breathing vapor will be irritating to nose, throat, and eyes.
	Emergency and first aid procedures: Skin Exposure: Wash affected area with soap and water.
	Eye Exposure: Flush with water for at least 15 minutes, consult physician.  Ingestion: Consult physician immediately.  Inhalation: Remove victim to fresh air., consult physician.
_	
	Section VI — REACTIVITY DATA
	STABILITY UNSTABLE XXX STABLE CONDITIONS TO AVOID: Storage at high temperatures.
	Incompatability(Materials to avoid): Strong oxidizing agents. Sparks & open flame
	<u>Hazardous Decomposition Products:</u> On combustion CO, CO <sub>2</sub> , Aldehydes and other organics, oxides of nitrogen.
_	HAZARDOUS POLYMERIZATION MAY OCCUR XXX WILL NOT OCCUR CONDITIONS TO AVOID
	Section VII — SPILL OR LEAK PROCEDURES
	STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Eliminate sources of ignition and clear fumes from are Prevent liquid from entering sewers, water sources, or low areas. Keep unnecessary personnel awa Shut off source, if possible to do so without hazard. Contain spilled liquid with sawdust, sand of waste bisposal methods. Wash area with detergent a water.  Consult disposal expert and ensure conformity with local regulations.
=	Section VIII — SPECIAL PROTECTION INFORMATION
-	RESPIRATORY PROTECTION: Use approved respiratory protection such as an air-supplied mask if used in
	non-ventilated area.  Mechanical: Explosion-proof ventilation equipment, No smoking or open lights.
	VENTILATION : Face velocity > 60 fpm in confined area
	Protective Gloves: Chemically resistant gloves.  EYE PROTECTION: Chemical splash goggles or face shield.  OTHER PROTECTIVE EQUIPMENT: Eye bath & Safety Shower.
	Section IX — SPECIAL PRECAUTIONS
5	PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: Keep containers closed when not in use. Do No handle or store near flame, heat or strong oxidants. Adequate ventilation required. Containers of this product may be hazardous when emptied - these containers retain product residues (vapor, liquid, et other precautions
	All handling equipment should be electrically grounded. Treat as a very flammable liquid.

Section V — HEALTH HAZARD DATA

BOE-C6-0207926

Lee A. Dickinson Technical Service Manager